Exhibit

2

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA

CASE NO.: 1:24-cv-00779-JPH-MKK

MAX MINDS, LLC,

Plaintiff,

v.

TRIANGLE EXPERIENCE GROUP, INC., ROBERT EDWARD CLARE, JEFFREY MASE, KEVIN G. MULLICAN and JOHN DOES 1-10,

Defendants.
_____/

Loudoun County, Virginia 20165
Wednesday, 10:05 a.m. - 12:29 p.m.
February 19, 2025

CONFIDENTIAL

VIDEO CONFERENCE DEPOSITION OF NICK FERRARA

Taken on behalf of the Plaintiff before SANDRA GOLDMAN FREDERICKS, Florida Professional Reporter, Notary Public in and for the State of Florida at Large, pursuant to Notice of Deposition of Nick Ferrara in the above cause.

APPEARANCES VIA VIDEO CONFERENCE:

J. CAMPBELL MILLER, ESQUIRE
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ALSO PRESENT:

Brandon Fischer
Jordan Abisror

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E X H I B I T S

Thereupon:

NICK FERRARA

was called as a witness and, having been first duly sworn and responding, "I do," was examined and testified as follows:

DIRECT EXAMINATION

BY MR. ROTHMAN:

Q. Good morning, Mr. Ferrara.

A. Good morning.

Q. Have you ever had your deposition taken before?

A. I have.

Q. How many times?

A. About a dozen at this point, I think.

Q. Okay. Great.

I'm going to be asking you some questions.

Since you've had your deposition taken before, have you had it taken remotely like this over Zoom?

A. Probably half of those times at this point, I think.

Q. Great. Okay. So you probably know how to handle this.

Just a reminder, let's try and talk -- not over each other so that the court reporter can get my questions and your answers clearly. All right?

A. For sure.

Q. And if there's anything you don't understand, let me know, and we'll repeat it or have it read back.

A. Will do.

Q. Great.

So you have exhibits that we sent and they all have numbers beginning -- in the file names beginning with 001 and 002, et cetera, and I'd like to have you open Exhibit 1, which is entitled "Expert Report of Nick Ferrara", and Exhibit 2, which is a document called "Systems and software engineering - Vocabulary".

(Thereupon, the above-referred to documents were premarked as Plaintiff's Exhibit Numbers 1 and 2, respectively, for Identification.)

BY MR. ROTHMAN:

Q. Let me know when you have -- if you have those open.

A. I have them both open.

Q. Great. Thank you.

So Exhibit 1, is this the expert report that you prepared in the case we're here on today that is dated January 31st, 2025?

A. I'll double-check the date for you. Just one moment.

Yes, although it looks like some highlighting has been added on a lot of the pages.

Q. Yeah. There might have been some highlights that I put in.

Other than the highlights, does it appear to be the expert report that you submitted in this case?

A. I think so.

Q. Okay, great, and the signature at the bottom of page 26 is yours?

A. It is.

Q. Okay. It's not indicated to be submitted under penalty of perjury, but is everything contained in this expert report, as far as you know, the truth based on your personal knowledge?

A. It is.

Q. So we have your CV, which is attached, I'm going to skip over that, and I'd like to start by going to the Executive Summary on page 8 and I want to direct you to paragraph 16, and in the first sentence of paragraph 16, you say, "The record indicates that TEG worked jointly with Max to complete technical work involved in developing the Haptic Federal software."

MR. ROTHMAN: Ms. Goldman, haptic is h-a-p-t-i-c.

THE COURT REPORTER: Thank you.

BY MR. ROTHMAN:

Q. Do you see that, Mr. Ferrara?

A. I do.
Q. Okay. When you say "the record indicates", what are you referring to?
A. So the various materials that I have in my report is probably the easiest way to summarize that.
You know, there are -- go ahead. Sorry.
Q. No. The -- so you mean Attachment 2 where you list materials that you relied upon in preparing your report?
A. Let me look at Attachment 2 again.
In general, I think that's true.
In other words, all of those documents, that's basically, I think, all the material that were produced to me that I've considered in this case.
Q. Okay. Well, so but does Attachment 2 contain a list of all the materials that you considered in connection with preparing your expert report?
A. I need to take a look.
In general, I think the answer is yes.
It is possible certainly there is some things further cited in some of the footnotes in the report that might have (inaudible) my attention.
In general, I try and cite the salient points in footnotes and have sort of a comprehensive listing in Attachment 2 of it should be everything, but I mean it's

certainly possible there's things in the footnotes that are relevant to that as well.

Q. Okay. So when we're talking about "the record" in paragraph 16, you mean either documents that are listed in Attachment 2 or materials that are cited in footnotes to the report?

A. Yeah. I mean I guess I'll clarify that for you.

Q. All right.

A. You know, when I'm talking about the record, I'm talking about materials that have been produced in this case.

Obviously there are other materials such as publications or industry standards that I'm citing to as well, but it's not really part of the record per se. I'm really referring here to materials produced in the case.

Q. Okay, but for clarity, all the materials that were produced in the case that you looked at and relied upon, right, are listed either in Attachment 2 or is referred to in footnotes; correct?

A. In general, I think that's true. It's certainly possible there's, you know, stuff that just didn't make it into Attachment 2, but as best as I can recall, I think that's what's been produced to me.

Q. How did you receive the materials that are listed

in Attachment 2; in other words, did you get sent a link to download them from someone or were you given access to a computer system or were you given paper copies? How did you get them?

A. It probably varies for the specific material.

You know, I think some of this probably was documents that were e-mailed. I would think some of it also was probably sent via some sort of file sharing site. You know, I don't recall the specifics of the exact transmission medium that was used for each of these as I sit here at this moment.

Q. Okay. We -- there's been documents that have been produced in the case by each side.

Did you get to choose which documents you would look at or were they just all -- all the ones in Attachment 2 were just provided to you and without your ability to select which ones you wanted and which ones you didn't want?

A. Well, I mean I -- my general recollection is I was given, you know, here's a folder of documents or here's a set of documents, and I could just look at all of them.

Q. Got it, and who gave you those; do you remember the person?

A. No.

Q. Was it an attorney working for the Bean Kinney firm?

A. I think that's right. I couldn't tell you who specifically gave me these documents from, you know, six months ago.

Q. All right. Do you remember when several --

A. No.

Q. -- months ago is?

A. No.

Q. So looking back at your report, you say in the second sentence, "analysis of the parties' source code corroborates TEG's position that it provided key architectural designs that Max used in the development of the Haptic Federal software".

Now, if you can turn to Attachment 2, can you identify for me what you're referring to on Attachment 2 as the parties' source code that you did analysis of?

A. I'm sorry. Attachment 2?

Q. Yes, Attachment 2.

A. Sorry. I misheard Exhibit 2 for a moment there.

Give me a moment to scroll down.

Q. Sorry.

A. No, no, I -- my bad.

Sure.

So this is the source code that's listed at the

top of page 1 on Attachment 2, the first section being "TEG Source Code Repository Data", which starts with repository named "aces" and goes down through depository named "VJOC-Client-main" --

Q. Okay.

A. -- and the source code under the heading "Max Source Code Repository Data", which since there's just four of them, I'll just list them, [redacted] and I think all of those listed in the section under both "TEG Source Code Repository Data" and "Max Source Code Repository Data", those should all be source code repositories.

Q. Okay. The ones listed under "Max Source Code Repository Data", the four items there that you read into the record, those you reviewed on the source code review computer that you examined at the offices of Bean Kinney; correct?

A. That's correct.

Q. Okay. With respect to the ones above that under "TEG Source Code Repository Data", starting with "aces", how did you go about reviewing the source code repository for ACES?

A. Can you be more specific?

Q. Well, was it something where you were given files

that you downloaded and examined on your own computer or did you go to a facility to review it; how did it come about?

A. So I was provided with copies of the repositories for these files and used --

Q. Okay.

A. -- industry standard tools to be able to review and analyze the source code.

Q. Okay. So you did all the analysis in your office, not at a remote location?

A. I think that's correct.

I think this was all provided to me fairly early on before the parties sort of got into their dispute over the mechanism by which the source code was going to be produced.

So I'd have to go back and check, but that's my recollection.

Q. Okay. So with respect to ACES, what format was the repository in; was it in Git format or some other format?

A. Yeah, I'm pretty sure all of the repositories listed here are Git repositories.

THE WITNESS: And for the court reporter, Git is G-i-t.

BY MR. ROTHMAN:

Q. Okay. All right, and do you recall -- now, when we talk about a repository, that's actually one of the definitions in Exhibit 2.

So is it correct that in footnotes to your report, you refer in a number of places to the standard, "Systems and software engineering — Vocabulary", that's marked as Exhibit 2 for the definition of terms?

A. So just to make sure I understand your question -- would you repeat it? I think there were a few (inaudible) --

Q. Yeah.

A. -- that I'd like a little clarity, please.

Q. Is it true you refer throughout your report to definitions of terms contained in "Systems and software engineering — Vocabulary" marked as Exhibit 2?

A. Yes, that's correct, and just to be clear, I've also referred to that as ISO 24765.

That's referenced back to the systems ISO international standard.

Q. Okay. If I refer to Exhibit 2, you'll know what I mean though; right?

A. Sure.

Q. Great.

So there is a definition in Exhibit 2 of repository, and it's 3.3415.

When you're using the term "repository", are you using that term as it's defined in Exhibit 2?

A. You'll have to give me a minute to review the definition.

Q. And there are actually bookmarks in the document I sent to many of the terms. If you open the bookmarks panel, you might be able to get there a little quicker.

A. Actually you providing the -- oh, yeah, that's fair. Okay.

I was going to say, if you just give me the line item number like you did, 3.3415, that was perfectly fine too, and, in fact, I might ask you to do that.

Repository is -- oh, no, it is listed out.

Okay. Let me just review the definition. So give me a moment.

I mean I would say insofar as these sort of more general definitions are consistent with a Git repository, which is a version control management program, and the technology used to store changes to source code over time, I would say that's consistent.

Q. Great.

Now, it's my understanding that Git repositories will have information contained in them indicating, for example, a name or e-mail address of a person who submitted code into the repository.

Is that your understanding?

A. That's generally correct, yes.

Q. In the course of your analysis, did you examine the names or e-mail addresses of the people who were submitting code into the Git repositories listed at the top of Attachment 2 to your report?

A. I believe I did as part of my review of the code.

Q. Okay. Did you make notes about that or keep a record of those names or e-mail addresses anywhere?

A. I don't think so, no.

Q. Okay. It's my understanding also that when there is a submission or something called a commit to a Git repository, it will also indicate a date that -- or potentially multiple dates if the code is subsequently revised, that the code was submitted to the repository.

Is that your understanding?

A. That's correct.

Q. Okay. Did you take note and memorialize the dates for any of the commits in the repositories listed at the top of Attachment 2?

A. I would say yes to that.

Q. Okay, and where is that information; did you -- 'cause I don't see -- with respect to the "aces", which is the first repo (phonetic), did you keep notes as to dates of commit for that one?

A. Give me one moment to check. I might be able to point you to a specific footnote.

So in general, I refer you to footnotes 18 through 21 in which I refer to commits from particular TEG source code repositories, which are listed in quotes, and I provide both specific files at particular commits as well as dates for those commits.

So, for example, in citing to this particular item in footnote 18, that's a TEG source code repository, double quotes, [redacted] unquote, and then parenthetically, (June 12th, 2018), at a particular line with a parenthetical description after that describing --

Q. You're reading -- yeah, you're reading from footnote 18.

A. I am, and the point I'm trying to make is if you look, for example, midway through that first line, where it says "e4d4aa", that is the first six characters of a particular commit.

That's a typical approach for identifying commits. They are listed commit and colon followed with the path, the particular file in the source code repository, and I've noted parenthetically the date of that particular commit.

Now, I will also note for full context, if you look further down at, for example, footnote 20, where I have "TEG source code repository [redacted], at -- you know, I'm sorry. That's actually a bad example.

There may be one or two here where I've referred to the commits generally because there is something that is broader or might be a commit message, for example, that is specific to the entire commit rather than changes to a certain file.

So it is typically listed in my footnotes where I'll just say, you know, at commit hash line and then the six characters of the start of the commit hash ID, and forgive me. I don't know how technical you are. If there's a concept or term I throw in there by reflex, let me know and I can explain it.

Q. I definitely will, but I am pretty technical, but if I have questions, I'll let you know.

So but let me ask you, going back to the beginning of footnote 18, where you say, "see, for example, TEG source code repository" okay, which item are you referring to listed at the top of Attachment 2?

A. The transaction-manager repository.

Q. Okay. I see.

So item -- the fourth bullet down, --

A. Correct.

Q. -- the [redacted]?

A. Correct.

Q. Okay, and whenever you refer to TEG source code repository, in the footnotes that follow, are you always referring to that transaction-manager item?

A. No.

Q. Okay. So what is the transaction-manager; what can you tell me about that repository?

A. I would have to look back at each one of these to give you a better summary description.

There are particular items I've cited to that are relevant here.

That is, I recall, a back end component of the software as provided, --

Q. Yeah.

A. -- and I've cited the particular file's description, but I would have to go back and look at the source code to give you a full explanation.

Q. I got it.

A. In the repositories, there are README files which provide sometimes some summary indication. Those are probably the easiest way to summarize their functionality, but I don't have those in front of me.

Q. Okay. Did you create a file name listing of all of the files in the repositories listed at the top of

Attachment 2?

A. I don't think so.

Q. Okay. Is that something that you could do?

A. As a technical matter, sure.

Q. We'll come back and we'll go through some more specifics about that in a moment.

So if we go back to middle of page 8, paragraph 16, you say that your analysis corroborates TEG's position that it provided key architectural designs.

What do you mean by key architectural designs?

A. So for this, I would refer you to, I'll give you the exact citation, paragraphs 26 through 29 including 29's subcomponents.

These are fundamentally the organizational components that are at the heart of how the source code I analyzed operates.

Q. Got it. Okay.

So I want to ask some other questions about some other documents before we go further.

(Thereupon, the below-referred to document was premarked as Plaintiff's Exhibit Number 3 for Identification.)

BY MR. ROTHMAN:

Q. So Exhibit 3 is a document called "Declaration of Janna Clare".

Did you review that document at all in preparation for your expert report?

A. I'm not sure.

I know I had seen some of the papers and attachments that have been or some of the attachments that were included as exhibits to the parties' most recent motions. I just don't recall if this is one of them offhand.

Q. Okay. I'm asking specifically about the declaration part that begins the exhibit, not about any attachments.

A. No, I understand.

I think this may have been an attachment to something that was recently provided. I just don't recall for sure. It looks familiar, but I'm not positive.

(Thereupon, the below-referred to document was premarked as Plaintiff's Exhibit Number 4 for Identification.)

BY MR. ROTHMAN:

Q. Okay. What about the "Declaration of Robert Clare" that begins on the second page of Exhibit 4?

A. Exhibit 4, give me one moment.

I'm not sure.

(Thereupon, the below-referred to document was premarked as Plaintiff's Exhibit Number 5 for Identification.)

BY MR. ROTHMAN:

Q. Okay. What about the "Declaration of Kevin Mullican" that -- in Exhibit 5, that begins Exhibit 5?

A. Give me one moment to review the document.

I think the answer to that is yes.

Q. Okay.

A. I think I was provided with this fairly recently.

Q. Okay. Did you rely on that for any of the opinions you give in your report?

A. No.

Although I think it is consistent with my understanding of TEG's position, I don't think this was available. 'Cause this was executed January 30th, I'm not sure if I saw this prior to that, but I think it is consistent with my understanding of TEG's position.

(Thereupon, the below-referred to document was premarked as Plaintiff's Exhibit Number 7 for Identification.)

BY MR. ROTHMAN:

Q. Okay. Exhibit 7 is an "End User License Agreement".

Did you review that and rely on it at all in

connection with providing your opinions?
A. So you have two questions in there, I think.
Could you just repeat it and maybe break that apart for me?
Q. Did you review this prior to providing your opinions and did you rely on it?
A. I am not sure if I have reviewed it. I don't have a Bates number on this document, so I can't check that one way or the other offhand, and I do not believe I relied on it for any of my technical analysis.
(Thereupon, the below-referred to document was premarked as Plaintiff's Exhibit Number 8 for Identification.)
BY MR. ROTHMAN:
Q. What about the next -- same question for the next document, Exhibit 8, the "Source Code License Agreement".
A. Just for my own clarity, the document has a sticker on it that says "Exhibit 8", but the document's also labeled "Exhibit 6".
Should I be going by the sticker and the file name?
Q. Just don't go with the Exhibit 6 name that's in the middle of the page. It's the same -- it's the Exhibit 8.

A. Okay. So use the file name, the 00 8 as the --
Q. Yes, please.
A. Okay. All right.
I may have seen this. I don't recall when. Obviously I believe I've seen this -- well, I certainly saw this when you sent it ten minutes ago. I don't recall if I saw it before.
Again, this document's not Bates numbered. So I can't easily check that.
Q. Okay, but you didn't rely on it at all?
A. For the technical analysis, I don't think so, no.
Q. Okay. Did you rely on any agreements for your analysis?
A. I don't think I'm relying on any agreement. I had an understanding of certain agreements, but I think my analysis was all just based straight upon analysis of the source code and the other material cited in the record.
Q. So did you find -- in your review of the source code on the review computer in the four repositories listed on Attachment 2 under "Max Source Code Repository Data", did you find any source code that was written by anyone at TEG?
A. So that particular question is difficult to answer. Both given the constraints on the review

computer and the fact that the source code has been isolated, it's difficult to do any side by side comparison.

I know, if I recall from some of the declarations, that there are references -- or maybe it was from some of the testimony, there are references to pseudo code or other information that was provided. So it would be hard for me to answer that without being able to do a full side by side comparison.

Obviously that's separate from my opinion regarding the architectural similarities that are pointed out in my report, but in terms of actual source code, I would need both sets of data on one computer to do any side by side comparison.

Q. Understood, but is the answer to the question -- considering the constraints of your review, is the answer to the question that you didn't find any source code authored by anyone at TEG on the review computer?

A. I don't think I've offered an opinion on that. I think the constraints on that are, you know, I haven't been asked to get into the weeds of where did each line of code come from except insofar as that the architectural similarities, as I've pointed out in my report, are things that are -- well, I'll rephrase.

The architectural similarities in the source code

that was on the review computer are the same as the architectural elements that are present in the earlier source code that I've reviewed that was provided by TEG.

That I would say is the same and I understand that that might have some bearing on that question.

In terms of specific lines of code, I'm not in a position to do that analysis the way the code has been produced at this time.

Q. Okay. So your engagement, you were not asked to determine where did the code come from; is that my understanding?

A. No, I wouldn't say that.

I would say that what I was asked to do was to analyze the source code particularly as it pertains to what's in the record related to what TEG developed vis-à-vis the source code on the review computer.

So, you know, in the particular context of what we're looking at here, that is architectural analysis.

That is distinct from the question of analyzing individual lines of source code and saying, this line of source code was written by this person or that person.

Q. Okay. You used the phrase a moment ago, "what TEG developed"; right?

In other words, you were looking at, what did TEG develop that was in my client's source code; right?

A. Well, a couple of things.

First and foremost, you said your client's source code.

Are we talking about the source code on the review computer?

Q. Yes, Max's source code.

A. Well, okay, I -- first, again, just to be clear, my -- I'm happy to refer to it as the source code in the review computer, but my understanding is the ownership of that source code is at issue.

So just so the record is clear, when we're talking about what you have referred to as Max's source code, I'm only referring here to the source code in the review computer.

I have no opinions on the ownership of the source code. Those are legal issues outside the scope of my report just so that's clear for everything.

Q. Okay. Agreed.

A. With that said, perhaps you could repeat your question just to make sure I give you a complete answer to it.

Q. Thank you.

So it was not part of what the -- what you did in your analysis to determine whether TEG developed any of the source code on the review computer?

A. Well, I think that's conflating sort of an idea that we're looking at individual lines of source code versus the underlying designs that are used to implement the system.

You know, I mean you -- to the extent that the TEG source code implements those designs and those designs are then present later in the source code on the review computer, I'd say that is part of my analysis.

To the extent we're talking about looking at each line of code, that's not something that can easily be done based on the constraints that were placed on the review computer, and so, you know, the -- I think, again, the architectural analysis is really what we're talking about in terms of designs that were developed by TEG that then get implemented in the source code on the review computer.

Q. Okay, and when you're talking about "designs that were developed by TEG", you were referring to the detail that you put into your analysis beginning at paragraph 21 of your report under the heading "Design"?

A. In general.

Obviously the findings are more specific as you get down into that. That section includes some methodology and some further background, but in general, that is correct.

Q. Okay. So what was it that you determined TEG designed?

A. So there is several elements of the architecture that I point to in my report and these are covered in paragraph 29 and its respective subparts.

So one element of it is the concept of a single message box or a source of information that is used to distribute messages to all connected users.

As I point out, that serves the same function as the board that is in the source code on the review computer.

Another is the use of WebSockets as the transmission technology, for lack of a better term, to send and receive data to clients connected to the software, and it -- further, the attachments or rather the components that are used for certain types of media that are stored on the boards or in the message boxes, however you want to phrase it, related to chat and video streaming functionality.

The same general organization for how those components are laid out in the software, their purpose and how they interoperate is the same as what's in the source code on the review computer.

Q. Okay. So summarizing, one, the architectural concept of a board; two, the use of WebSockets; and

three, the use of components for media such as chat video; is that an accurate --

A. I would say it's probably you've gone a little too high level.

It's not necessarily, for example, just the architectural concept of the board but how it fits into the system as a whole and how it interoperates with the other components.

I think all of how those pieces fit together is centered around the board as part of the architecture as well.

Q. Okay. So in the course of your review leading to your opinions in your report, were you given any design or architectural documents that were authored by someone at TEG that laid out these three items?

A. I would say this is based on my analysis of the code.

I would also say to the extent there are README files or other documentations that are included in the source code, that's relevant too. That provides some overview in some of the components I seem to recall.

I don't know that there are other documents beyond that, but my analysis is all based on the source code directly and what's in those repositories.

Q. Okay. So there is an item, a vocabulary item, in

in Exhibit 2. It's item 3.1164 called "detailed design description".

Did you see anywhere in your review a detailed design description authored by someone at TEG?

A. I don't think so.

It's not necessarily something that is always produced when you're developing source code, but it -- I don't recall seeing one for this particular project.

Q. Did you see any indication that there was ever a detailed design review conducted, which is defined in 3.1164?

A. That's something that would come typically, I would say, later in the software development process.

You know, I think of -- for context, I've had cases where, for example, in the development of software for the healthcare industry, you know, oftentimes, if you're using a software development lifecycle such as those promulgated by the Center for Medicare Services, they'll have specific phases where they say, you're going to do your development, and then there will be a detailed design review phase where, you know, all the documents you've built, which we've required as part of a particular project, are going to be examined.

So that happens in some projects based on the specific nature of what's going on and how the

development is being done. That's not necessarily relevant for what we're looking at here.

Q. Okay. Did you see any documentation other than what you saw in the source code that laid out the design requirements written by someone at TEG for the three items that you identify?

A. I don't know that I've seen anything in terms of requirements for -- we're talking about the items in paragraph 29; right?

Q. Yes.

A. I don't know that I've seen anything that provided requirements that were written earlier on for that.

Certainly all of that code, if you look in the repositories developed between 2017 and 2018, I don't think anything I've seen dates back to that period for specifically those requirements.

There's obviously other requirements that are, you know, elsewhere in the record, but I don't think there's anything for that time period.

Q. Okay. Did you come across in your review anything that you would describe as a software development plan that included the three items in paragraph 29 that was written by someone at TEG, and the definition of software development plan is at 3.3806.

A. Give me one moment to take a look at that; 3.3806?

Q. Uh-huh.

A. One moment. Let me take a look.

No, but I wouldn't expect to see something like that in a software development plan.

Software development plans are typically processes that are described for how the software is going to be developed in terms of where source code will be stored, who's going to work on it, who will have review authority, how a particular branch of the source code might get handled, things of that nature that have more general purpose to how the software is developed.

They're not going to be specific to any one particular project's requirements or designs or things like that. They're a higher level document typically.

Q. Did you find anything in your review that contained the three items in paragraph 29 written by someone at TEG in the nature of software design description, which is defined in 3.3799?

A. I'll take a look at that document.

No. I think it's, again, sort of consistent with what I said earlier on the design documents, which are the detailed design description.

You know, there's not much in terms of documentation that sets forth sort of the abstract designs.

You know, my analysis and assessment of the source code is based on my training, experience and my background as a system architect and my analysis of the source code primarily.

I don't know that I've seen something where this was broken down at the level of some of those kinds of documents except insofar as that there may be documentation in the source code as well.

Q. Okay. You talk about documentation in the source code, right.

We're talking about comments or notes that are in the source code itself; correct?

A. Correct, and I'd include README files in that description as well.

Q. And README files. Okay.

When you were looking at the code in the repos that are listed at the top of Attachment 2 under "TEG Source Code Repository Data", did you see any comments or README files that were written by TEG employees or contractors?

A. I think that's right, but I would have to go back and check the source code to see the history of those files.

Certainly there are README files in at least some of these repositories, but I would have to check and

see, looking at the history, who wrote them.

Q. Okay, but you don't recall seeing -- sitting here today, you don't recall seeing any that were written by TEG employees or contractors?

A. I mean I would say that's my understanding -- my recollection, rather, excuse me, but I would have to go and check.

I mean there's a hundred commits or more across these repositories, each of which has its own metadata. I just don't recall the specifics of each one as I sit here.

Q. Okay. It's my understanding that the items, the three items in paragraph 29 that you're identifying as being things that TEG developed, right, it's my understanding that in doing your review, that you were looking at the code to determine whether someone from TEG developed those items in paragraph 29, or am I incorrect about that?

A. I mean I think that is correct.

It is certainly my understanding that the source code was written by TEG. You know, if you're asking more specifically beyond that, who, I would have to check the repository.

Q. Okay. So is it your understanding then that the first item in the source code repository list for TEG at

the top of Attachment 2, "aces", is it your understanding that the source code in ACES was written by someone at TEG?

A. Well, I guess I should be a little specific here to be safe.

So my understanding in general is that the source code we're talking about here in the two, three, four, five, six, seven, eight, nine -- no, I'm sorry, the eight bullet points at the top of Attachment 2 under "TEG Source Code Repository Data" generally are all components of the ACES software.

I've tried to refer to it broadly in my report to make it a little easier, but specifically I'm referring to all of those eight bullet points that are at the top of Attachment 2 when I'm talking about the ACES software in that section.

Q. Okay. So from "aces", which is the first bullet point, down to "web-video", which is the eighth bullet point, --

A. Correct.

Q. -- all of these are part of the ACES software?

A. When I'm using that term in the report, that's what I'm trying to get at, yes.

Q. Okay, and is it your understanding that those first eight items contain source code that was written

by someone at TEG?
A. That's my recollection, yes.
Q. Okay, and it's your recollection based on what?
A. Review of the source code repository data.
Q. Okay, and by review of the source code repository data, you mean the person who did the commit to the repo?
A. Commits, plural, I think that is correct. I'd have to check and see if there is further data and comments or documentation that might also support that, I don't recall offhand, but at the very least, that would be one source of metadata towards that point, correct.
Q. Okay. Did you have some list of TEG personnel that you could refer to when reviewing the commits to identify, oh, this person who did this commit on this date in the ACES software, which is the first one, that person was a TEG employee?
A. I would have to go back and check my materials to see if I had a list or something provided.
Certainly I have an understanding as to some of the people who are TEG employees, but I don't know that I have a comprehensive list. I'd have to check the materials that I've been provided.
Q. Well, I'm trying to understand how you knew, from

looking at the names or e-mail addresses of people who did the commits for the first eight items, that those people were working for TEG at the time. That's what I'm trying to understand, because I thought I heard you say that all of the commits for those first eight items were by TEG people.

A. I'm sorry.

Q. Did I hear that correctly?

A. No, I'm not sure I said it quite like that.

Q. Okay.

A. I think what I said was that I believe there are commits by individuals who are TEG in there. I seem to recall that.

Q. Okay.

A. I don't actually know if I can tell you all of them are one way or another. I'd have to look at the source code repository.

Q. Okay.

A. I certainly have an understanding that the code that TEG provided, I believe they've said that that was code that they developed.

I would have to double-check that as well, but I think that is consistent with my review of the repository data, but, again, I don't have it in front of me. I would have to go back and look.

Q. Okay. So do I understand correctly then that it was represented to you by whoever gave you those repos that at least the first eight items at the top of Attachment 2 contain code developed by people at TEG; is that the representation given to you?

A. I think when I was initially provided that, when we were discussing what was available for my analysis, I think that's right. I think that's also consistent with my review, as I recall it, looking at the commit histories, and I think those -- I think that was consistent, but, again, I would have to check the repository data.

Q. Okay, and when you say you think it was consistent, for example, the metadata for these commits, would they contain e-mail addresses that would indicate that the person who did the commit had an e-mail address @triangleexperiencegroup.com; is that what you mean?

A. So when you commit to a source code repository, you're going to have a name and an e-mail.

The name and the e-mail may or may not be at a particular organization.

There are many times I've seen when people use their -- get accounts on their local computer and they forget they have their local e-mail address put on, so like a Gmail or Hotmail account that -- but it will

still say typically their name.

That is the kind of metadata that's usually included with the repository that we're talking about here.

Q. Okay. Well, but wouldn't you then have to have been given a list of all the names of the TEG developers in order to match them up with the commits to know that the source code in those commits was written by someone who worked for TEG?

A. Well, no, not necessarily.

Q. Well, how else would you know?

A. Well, you said, would I need to be provided a list.

I mean the names of some of these individuals are in the record.

Kevin Mullican, obviously I don't need to see --

Q. Okay.

A. -- his name on a list to know he's associated with TEG.

Q. Okay. So you saw Kevin Mullican's name as being one of the names of someone who committed -- who did a commit to the first eight repos?

A. It seems correct, but I don't recall as I sit here for sure.

Q. Okay. So were there other names that you saw who

you know from the record who committed software in the first eight items?

A. Again, I would have to check the repository history. I don't recall all of the entries as I sit here today.

Q. Okay. What about the last three items, [redacted] did you examine those to determine who did the commits?

A. For those, I recall looking at the history at one point. I don't recall the specifics of that right now.

I think what I was looking at was looking particularly at the initial version to understand the architecture of the software as it existed when it was first checked into those repositories, so at the earliest possible time available.

Q. Okay, and did you -- when you looked at those initial commits, did you see that there were names of people committing the software who worked for TEG?

A. Again, I would have to go look at the repository history. I don't have their history of their repositories memorized.

There's hundreds of entries in these different databases.

It's -- you know, it's the sort of thing that you would typically look up looking at the repository

instead of trying to remember.

Q. Okay. Just to make things clear, you're not sitting here offering an opinion that TEG or anyone working for TEG wrote source code in any of these repositories at the top of Attachment 2, right; that's not one of your opinions?

A. I'm not sure I would say it like that.

Certainly I have an understanding that, to start with, I asked for what TEG's preexisting codes that they have available, what was it.

Q. Okay.

A. So that's the starting point.

I would -- I seem to recall, looking at it, that there are commits that are consistent with TEG employee names like Kevin Mullican, I think, perhaps in these repositories. I don't recall all the specifics.

You know, that might be an understanding assumption in some of the analysis, but I don't know that I've -- I wouldn't quite phrase it the way that I think you did in your question.

Q. Okay. I just want to make sure that we understand the scope of your report because it seems to me that there is a difference -- and correct me if you think I'm wrong, Mr. Ferrara, it seems to me that there's a difference between writing source code and what you say

TEG did in paragraph 29 with those three items.

A. I'm sorry. Was that a question?

Q. Yeah.

Is there a difference between writing source code and what you say TEG did in paragraph 29 with the three items that you've highlighted?

A. Yeah. I mean I would say they're both different parts of the software development process. They are -- you know, the design process is upstream of the code. You can't write code until you've done some degree of design.

Q. Okay. Thank you.

If we go back and take a look at, for example, paragraph 22, you're saying --

A. Paragraph 22 of which document, please?

Q. Of your report, --

A. Okay.

Q. -- page 11.

You say, "I understand from my conversations with TEG".

Okay. So who did you have conversations with and when did those conversations take place and how long did they take?

Can you start first with who did you speak to?

A. I don't know that I recall all the individuals.

Certainly Mr. Mullican was one of them.

Q. Okay, and when did you speak to him; most recently, when did you speak to him?

A. I mean I don't recall. It's been some months since --

Q. Okay.

A. -- that initial conversation or conversations.

Q. Okay. Did you take notes?

A. I don't think so. If I did, it would have been --

Q. Okay.

A. -- in the form of sort of data that ultimately gets finalized in the report as is.

Q. And what do you recall him telling you?

A. So my recollection is that he said, in 2017 and 2018, he was working on back end source code directed at developing sort of the next version of the software that they had been working with previously, that they were moving to a web-based system, which is going to have a different architecture design for the what I understand was a client-based system, one you would install on a computer that had been the code or the software he'd been previously working with, and he had been working on developing the underlying components of that new software prior to the engagement of Max Minds in, I think, 2019.

Q. Okay. So in paragraph 24, you say that you compared -- first line, "I compared the source code architecture and design of source code that TEG wrote for ACES, TEG's predecessor to the Haptic Federal software, to both early and later versions of the Haptic Federal software developed in mid-2019 and fall 2023, respectively."

So can you identify for me the items on Attachment 2 that you compared ACES to?

A. Sure.

So that's going to be to source code in the -- from the review computer.

Q. Oh, okay.

So how did you do that comparison?

A. So -- excuse me one moment.

So I reviewed using a technique called Static Code Analysis where you're actually reviewing the code as opposed to running it, read through the files, understood the relationships, understood how the different components interconnect and the system architecture fits together, and I compared that, again, Static Code Analysis to review how the source code worked on the read computer, how the different components connect, the different relationships between them and the different parts of the software that are

involved.

Q. Okay. Did you do the comparison simultaneously or did you first review the software on the review computer, the source code on the review computer, and then subsequently review ACES, or did you do it in the other way around, or was it at the same time; how did it happen?

A. I would say I reviewed ACES first and then the Haptic Federal software second.

Q. Okay, and what was the period of time between your review of ACES and your review of the Haptic Federal software?

A. I mean I don't recall specifically.

Q. So was it a day, a month, a year; I mean approximately what period of time?

A. I mean a few weeks, I suppose, since the initial review.

I certainly went back and refreshed myself looking at the source code as I was doing review, and I had my own computer, you know, connected to the -- to my network with access to the source code for my review as I was doing that.

So it wasn't like, you know, I had to memorize all of ACES and then go in and look at it. I had information available when I needed to do those

comparisons.

Q. Okay. So you had it -- when you did the review, you had your own computer that had ACES on it next to the computer that you did the review on so you could look from one to the other?

A. Yeah. I mean it's not the best process, but it's serviceable if you really have to.

Q. Okay. You didn't see any source code statements that were identical though; correct?

A. I don't know that I could say that one way or another.

Again, my focus was on the architecture and the analysis of how those pieces fit together.

Q. Okay.

A. There could always be lines that end up being identical as a result of the fact that there are programming constructs that will look the same when you're doing any sort of development, but, you know, I didn't go deeper into it from the particulars of particular lines of code.

Again, this was an architectural analysis of the parties' source code.

Q. What programming language or languages were -- was ACES in the first eight bullet points on Attachment 2 written in?

A. I think it was C++, but I would have to double-check if that's the only thing it's written in.

Q. Okay, and what about the review computer; what language was the code written in there?

A. Primarily C-Sharp. I think there's also JavaScript components if I recall.

Q. You say in paragraph 25 in the first line that "Analysis of the parties' source code demonstrates that core architectural design elements", okay, "used", you go on.

Those are the items listed in paragraph 29, right, the core architectural design elements?

A. For the TEG software for the Haptic Federal software, that's in 27 through 28.

Q. Okay. So the first item that you're dealing with in 26 "is the architectural concept of a board".

Do you see that?

A. I do.

Q. Okay, and then at the end of that paragraph, you drop a footnote 10 there at the bottom, and then you begin to cite to certain lines in the Haptic Federal software; right?

A. I believe that's correct.

Q. Okay. Do you know who wrote the source code at the lines cited in footnote 10?

A. I mean not as I sit here at this moment. I would have to go and look at the repository.

Q. Okay, and then it's my understanding that if we go forward to paragraph 29.1, that 29.1 is the same design elements that you found in TEG's software; right?

A. You mean in the Haptic Federal software?

Q. Right.

So 26 describes what you saw in the Haptic Federal software and then 29.1 is your description of what -- of that same element that you found in the TEG software?

A. That's correct. I think you had reversed it when you said it. So --

Q. Sorry.

A. No, no. I'm just making sure I was clear on the question.

Q. Okay. So you drop a footnote to 29.1 to footnote 18 and you go into some detail. It goes on to the next page about different lines where you find that.

Do you know who it was who wrote the source code that you're citing to in footnote 18?

A. So, again, I would have to check in the repository history, but I want to just make clear, at this point, when we're talking about the source code, you know, we need to distinguish here between just the actual line of text and the design, the sequence, the structure, the

organization of how this system operates that are being implemented by those lines of text.

You know, you might be able to say look at the repository and see who wrote down the actual here is the text of this particular line in a particular commit, but that is distinct from the question of the design elements, the structure and sequence and organization that's inherent in those lines. That is a different point that's not quite the same.

Q. Okay. Is it your opinion that the design elements, which you're saying are different from the source code, that these design elements that you found in paragraph 29, the three of them, that those design elements were confidential information owned by TEG?

MR. DELANEY: Object to the form of the question.

You can answer.

THE WITNESS: So, yeah, I mean I would say, to start, I don't think I've offered any opinions one way or another on confidentiality.

BY MR. ROTHMAN:

Q. Okay.

A. I can say that the design elements between the two are the same and the design elements listed in 29.1 through 29.3 are all developed between, I think, 2017

and 2018.

I'd have to double-check the dates for the earliest commits on some of those, but at least through 2018. Those are the most recent commits, I think, which are cited in my report.

Q. Okay.

A. Those predate the designs that are implemented in the Haptic Federal software.

Q. Okay, and in other words -- well, withdrawn.

Are you -- is it your testimony that TEG was the first to use the concept of a board in the design of software?

A. No. I think that's going further.

I'm talking about a board in the context of this particular application and how the pieces of that puzzle fit together.

Q. Okay. Are you -- is it your opinion that TEG was the first to use the concept of a board in this type of application; that is, no other software company had previously used the concept of a board in this type of software application?

A. No. Now you're going too narrow.

So, again, it's -- that is one component and it is the core of this application as a part of the larger system architecture.

It is the most important concept for someone to understand when you're trying to figure out how these components work, but it's part of this system as a whole and that's what I'm looking at when I'm comparing these two.

I'm not going -- you've gone both broader and more narrow. That's not quite what I'm saying.

Q. Okay. Is it that the combination of the concept of a board, the use of WebSockets and the use of chat and video streaming functionality together is something that TEG was the first to use; is that what you're saying?

A. I don't think I have said that they are the first to use it.

Q. Okay.

A. I said they developed a system using this architecture.

I haven't gone further than that to say it was the first time, but I think that this architecture was developed by TEG for this application and its purpose, and then my understanding, that is Mr. Mullican testified that he then had meetings with Mr. Fischer and discussed and provided that design architecture as the parties started at the outset of their relationship, and then what I can see in the Haptic Federal code is the

same architectural elements are present in the designs that are inherent in TEG's source code.

Q. Okay. Great.

MR. ROTHMAN: Do you want to take a break now or -- for five minutes --

THE WITNESS: That's fine.

MR. ROTHMAN: -- and then we can come back.

It's 20 after 11. I have some more to ask, but just to offer it to you.

THE WITNESS: Sure. I'd love to get a bottle of water actually.

MR. ROTHMAN: Okay. Great. Me too.

All right. Let's take five minutes.

Thanks.

(Thereupon, a recess was taken at 11:21 a.m., after which time the deposition resumed at 11:27 a.m.)

BY MR. ROTHMAN:

Q. Okay. So let's look at paragraph 27.

Paragraph 27, you talk about "implementing the WebSockets communications protocol"; correct?

A. Correct.

Q. Okay. In your footnote 12, you refer to the protocol "Comments 6455" from the Internet Engineering Task Force. It's dated December 2011.

Do you see that?

A. I do.

Q. Okay. So you're not saying that it was TEG's idea to use WebSockets as a design element for a computer program initially or originally; correct?

A. Can you repeat that? I'm not quite sure that it's right the way you phrased it.

Q. You're not saying that it was TEG the first to use WebSockets as a design element for a computer program?

A. For any computer program ever?

Q. Right.

A. Correct. That's further than I'm going.

It's the choice of this particular technology for this particular architecture is what we're talking about here.

Q. Okay, and it's -- you're basing your opinion on the fact that you saw the use of WebSockets in ACES, you were told that ACES was created by TEG, and then you saw the use of WebSockets in the haptic review computer; correct?

A. I mean I --

MR. DELANEY: Object to the form.

THE WITNESS: I would say you have perhaps oversimplified that.

It's not just the use of WebSockets, the use of

WebSockets as part of the architecture as a whole. It's not just, oh, here's WebSockets in one. Here's WebSockets in another.

It's how those components are connected to implement the functionality of the two systems as a whole.

BY MR. ROTHMAN:

Q. Okay. I only have three elements that you've called out in paragraph 29, right; the board, WebSockets and chat and streaming -- chat and video streaming. I just have those three.

Are you saying that there are more design elements that TEG contributed besides those?

A. I'm saying that while I have summarized those elements to high levels, specific connections and the specific implementations that build those up for these purposes are part of that as well.

You can't just reduce it just to that level. It's a little bit broader than that. In fact, that's some of what I have cited in the footnotes where I'm pointing to specific conscience to be able to say, this is where some of that functionality is implemented that links these things together.

Q. And do I understand correctly that there is no design document anywhere that specifies the use of these

three design elements in how they're linked together as you've described?

A. I would say I don't know that I have seen one that's like a document that was written in advance of programming. It's not necessarily atypical, especially if you have a small team or individuals working on code. They don't necessarily write down a design document, but I mean I don't know that I have seen one so far, --

Q. Okay.

A. -- again, with the caveat of my earlier testimony being except insofar that there's documentation in the source code itself on README files and other materials as well.

Q. Okay. The documentation in the source code that you saw, the README files and the comments, did you see any README files or comments where, when you read them, it indicated to you that the three elements that you call out in paragraph 29 made up some larger design concept that TEG was going for, or did it just talk about, in this piece of code, we use WebSockets, or in this piece of code, we implement chat and video streaming?

A. I would have to --

Q. Do you understand my question?

A. I understand your question. I just don't recall

as I sit here. I would have to go back and look at the code to answer it specifically.

Q. Okay. So I'm trying to understand whether it's your opinion that it's these three items in paragraph 29 used together that constitutes what TEG contributed or whether TEG's contribution consists of three separate features functionality from a design standpoint that are disconnected from each other.

Do you understand my question?

A. No, I don't think I do.

Q. Okay. By combining these three items into paragraph 29, you seem to be suggesting that these three items are somehow connected.

In other words, the use of WebSockets with a board and chat and video streaming is TEG's design concept.

Is that what you're saying?

A. I think in that they are sort of the core of the architecture that was being implemented, I think that is correct, --

Q. Okay.

A. -- and there's other parts of the system as well obviously which, again, I'd have to refer back to the source code for, but I think in general terms, that's correct.

Q. Okay, but you never saw anywhere where it said you

have to use WebSockets and a board and chat and video streaming functionality together; you never saw anything like that?

A. I mean except for the source code itself perhaps, which is where those designs are implemented.

Q. Right.

A. I mean it's in the pudding on something like that. That's what they ultimately built, --

Q. Okay.

A. -- just source code.

Q. Got it.

So beginning in paragraph 32, you go through testing.

What is it that you're saying that TEG contributed in terms of testing?

A. So refer you to, for example, 33 and 34.

In 33, I say, "Evidence in the record demonstrates that TEG performed system testing on the Haptic Federal software", and in 34, I refer to "regression testing", which is a form of testing that is similar to system testing, but it's for the specific purpose of demonstrating that defects that may have already been resolved have not recurred after functionality that has been changed and being further modified or extended, basically making sure that if you change something to

fix a problem, when you make further changes, you didn't break it again.

Q. Okay.

A. Let me -- if I may, let me just finish reading --

Q. Sure.

A. -- to make sure there's nothing further I wanted to add to that.

Yeah, I mean I guess, in general, this whole section involves sort of the testing after its -- we can go through in more detail.

There's evidence that I point out in 36 that there is testing going on and defects that are being remediated and identified by the parties jointly.

I've identified various defects that appear to have been identified by TEG personnel in 38. That's also covered in Attachment 3 to my report, you know, and obviously I talk about some changes that seem to have been implemented in the source code, you know, looking through the materials in terms of the records that were identified by TEG as a problem that ultimately were then changed by Max sort of at the direction of TEG to resolve the issue.

Q. Okay. So TEG was not making changes to the source code as a result of testing; it was all done by someone at Max?

A. I would have to look at -- in general, that might be right.

There may be things like system configurations or other things that would have been changed by TEG on the corey (phonetic) version of the source code, for example, that they might have identified and fixed.

I would have to go back and look and see if there's anything indicative of that particularly, but that is one possibility when you're doing this kind of system testing in software.

Q. Okay. One possibility but not something that you observed?

A. I'm not sure if there was anything that was referenced in some of the conference call videos I saw. So I'd have to go back and check through some of those again.

I know they did talk about some things that they were changing, configurations and other materials, but I don't know that I could give an affirmative answer one way or another or not without checking those materials again.

Q. Okay. So did you see in the course of your review any sort of test design documents or specifications?

A. I seem to recall there were -- there's references in the record to testing and test plans, but I would

have to go back and check the materials that I saw those in to refresh my recollection.

Q. Okay. Did you see any test documents that were written by TEG; other words, a test specification that TEG -- someone at TEG wrote?

A. I don't -- nothing like that comes readily to mind.

I know there were four to five reports, I believe I've seen, that included programatically detected security vulnerabilities and things like that.

In terms of like a plan for how testing is to be done, I don't know that I've seen something like that, although that again is like -- just like with the software design documents, you know, your mileage will vary on the extent to which parties actually create those upfront. Some do. Some don't.

Q. You talk about regression testing in paragraph 34.

There's a definition of regression testing in 3.3371.

A. You're talking of the ISO standard?

Q. Yeah.

A. Uh-huh.

Q. When you talk about regression testing, are you saying that TEG did regression testing?

A. So for that, I mean that's my understanding of

what we're talking about here in, for example, the April 25th, 2023, conference call that's listed in -- or I should say that's transcribed in paragraph 33 where Mr. Herren and Mr. Sinnk talk about running regression parallel together, or I should rephrase, where it says -- where Mr. Herren says, "We can run through regression testing, right? In parallel."

Q. Okay. You say in the last sentence of paragraph 34, "Regression testing is typically a technical test carried out by the software's developer"; right?

A. I do.

Q. Are you saying that it cannot be done by the software user or the software distributor?

A. Typically, no. Typically when you're doing regression testing, it's part of the development cycle where you're working on developing software for a particular purpose.

So, you know, there are various kinds of technical tests that will be done as part of the software's development in order to ensure that it works right.

Regression -- and those are all very technical in nature. You know, that's not something a user would typically do.

Regression testing is one of those tests. That's the sort of thing a developer would do as part of its

system testing to make sure fun -- a particular area of functionality is stable.

Q. Well, but the -- one of -- several of the definitions for "regression testing" in Exhibit 2, for example, definition 2, "testing required to determine that a change to a system component has not adversely affected functionality, reliability or performance and has not introduced additional defects", do you see that?

A. I do.

Q. It seems like something that a user could do; right?

A. I mean as a like could somebody go and press a button to regression test, theoretically, that is possible. In practice, that's not what is done.

Q. Well, but your transcript here, assuming that there were changes made to the software by Max, to the source code by Max, okay, are you with me?

A. Uh-huh.

Q. And then there was a need to make sure that those changes have not adversely affected functionality, reliability or performance and didn't introduce additional defects, then how is what's described in paragraph 33 inconsistent with that?

A. Because a user is not typically the party in a software development project who's executing those

technical tasks.

In a typical software development project, the vendor, the manufacturer of the software, is the one who's going to do all of the initial work to make sure that the quality issues have been addressed before providing it to the customer.

That's not what we're talking about here.

What we're talking about here says running through regression testing in parallel, together.

Q. Is it your assumption that TEG is the customer?

A. No.

Q. 'Cause that's what you said.

MR. DELANEY: Objection; mischaracterizes the testimony.

BY MR. ROTHMAN:

Q. What I understood you to say is that what's described in paragraph 33 is not something that a customer would do, and that indicates to me that from your point of view, TEG is a customer for this software.

A. No.

Q. Am I wrong?

A. I think you've misunderstood my testimony.

Q. Okay. So if TEG -- you do not think TEG was a customer for the software?

A. No. I would say, based on what I've seen in the

record, they were jointly developing and creating and testing the software.

In this particular paragraph, we're talking about testing now.

Q. Okay, and when you say "jointly developing", the word development, okay, what is your definition of development or if -- or better, what is your definition of joint development?

A. So I would say, in a joint development project, parties typically share responsibilities for creating a software product for whoever their customers ultimately would be.

That's going to include shared technical tasks typically, things like design, code construction, testing, implementation, sort of the key phases of the software development lifecycle, and I've set that all out in section, I think it's VII A of my report.

Those are the kinds of typical activities where, when a vendor is doing a project, they're going to be executing these very technical steps of this process.

When the parties are collaborating on those steps, that's indication that joint development is going on.

Q. Okay, but the definition of -- your definition of development, it sounds like, includes more activity than just the authoring of source code.

A. Correct.

I mean it's the same way in building a house.

Building a house isn't just putting up girders and hanging drywall.

There's steps that have to be done when you say to someone, I want you to build me a house; designing it, making sure it's safe to live in through testing it, as well as putting up those steps, and that's my point here.

Software development is the same way. It's not just I write source code on a page. You have to design what you're going to write. You have to write it. You have to test it. You have to make sure it's actually going to work.

Those are all typical and necessary steps of what is called the software development lifecycle or a software development lifecycle.

There's obviously different ways you can implement those processes and all of that's covered in section A of my report.

Q. Take a look at the definition of source code in Exhibit 2 at 3.3882.

A. I'm sorry. 3 --

Q. .882.

A. Okay.

Q. It says, "computer instructions and data definitions expressed in a form suitable for input to an assembler, compiler, or other translator."

Do you see that?

A. I do.

Q. Okay. With respect to the software that you reviewed on the review computer, did you find any source code, using that definition, authored by TEG?

A. Well, so, again, as I pointed out earlier, there is a distinction between individual lines of text and the designs being implemented by those lines of text.

You can't just say, you know, oh, they -- this person wrote the pen to the paper.

If they're using designs jointly created or created by another party, that's where we get into the distinction of what's going on and the facts specific to this case.

Q. I understand that distinction.

The question was a simple yes or no.

MR. ROTHMAN: Can you read back the question, Madam Reporter?

THE COURT REPORTER: Just a second, please.

(Thereupon, the question referred to was read back by the court reporter as above recorded.)

THE WITNESS: Yeah. I mean I think my answer

is ultimately the same.

I think inclusive in the way that question is asked is a conclusion that if somebody wrote this line of code, therefore, it is authored by that person.

It is more complicated than that because there are the other steps of the software development process that lead to the conclusion of how those lines of code are being chosen to be read.

That is where you get into the specific facts that we're looking at in this case with the similarities in the design that I've pointed out.

BY MR. ROTHMAN:

Q. Okay. The designs are similar; right?

A. Correct.

Q. Okay. Is the source code for the software you reviewed on the review computer source code that was written as in the definition of source code, "expressed in a form suitable for input to an assembler, compiler or other translator", written by anyone at TEG?

A. Well, again, I think I've answered that as well.

I think I have seen references in the record where there's testimony that things like pseudo code and whatnot were provided at various points to Max in the development of the Haptic Federal software.

I haven't gone further to try and look for those given the restraints of the review computer at this time.

It doesn't mean that they're not there or there might be substantial similarities to things that are there.

That's something I would have to check further for. So I don't know that I can answer that at this moment without doing further review.

Q. Okay. Turning to your item capital C beginning on page 18 at paragraph 42, --

A. All right. Give me one moment to scroll.

Okay.

Q. -- can you just summarize what your opinion is in this section?

A. Sure.

So I understand that there are -- one of the things at issue is the source code having been made publicly available by -- that -- I should rephrase.

I understand one thing at issue is that TEG made source code available for Haptic Federal software at some point in time. You know, I forget the exact time frame, 2021, 2022, '23, probably '23, '24, I forget the exact date.

You know, as that may pertain to potentially

issues of confidentiality, which I understand trade secrets are one thing that's at issue in this case, you know, what I'm pointing out in this opinion is that the functionality of the source code that composes the front end of the Haptic Federal software, you know, was being made available, or a portion thereof that are consistent with what's in the Alleo software were being made available publicly in the form of what is called a minified JavaScript file, and I get into detail in my report obviously about minification and how minification is fundamentally a technique that does not obfuscate the source code in a manner that changes its functionality and how it can be what is called beautified to create that -- to create something that is easier to read and that will show the functionality in less compacted terms in a minified file, and that's sort of everything that's covered in section C in terms of how that code is being made available, what is actually listed in terms of, you know, the time period I found and all of that sort of detail.

Q. I understood you to be saying basically that what TEG did with respect to the allegations of making the source code maps available was the same thing as what Max does with respect to making minified JavaScript available online.

A. That's not quite what I said.

Q. Okay. So is what TEG did, which is making source code maps available online, the same as making minified JavaScript available online?

A. I would say there's overlap.

Both approaches make the functionality of the software publicly available, or at least I guess in the context of this, where the code can be directly accessed, but when you have a JavaScript-based front end, the JavaScript files composing the front end have to be downloaded to the client's computer that's running it. It's just a feature of how that's worked. They are interpreted by the client's side of the computer in order to render the front end.

So in order for those files to work, the logic that implements the actual functionality of the front end is included in what's downloaded.

If those servers are publicly available, anyone who downloads those files will have the underlying functionality in the file they're downloading. That's the point I'm trying to make.

Q. Okay. JavaScript has to be downloaded if you need JavaScript in order to utilize the functionality, and so you are -- by choosing to use JavaScript, you're going to make some information available to the end user;

correct?

A. To the end user, that is correct.

Q. Okay. Is that the same as in terms of the functionality and information you make available to the end user when you make source code maps available?

A. In terms of functionality, it is. Ultimately, the functionality is still the same.

Q. Okay, but in terms of other concerns such as information security or confidentiality?

A. What about -- I'm sorry. Could you clarify the question?

Q. Yeah.

Is it the same in your view, in terms of confidentiality or information security concerns, making minified JavaScript available versus making source code maps available?

A. Sure, absolutely.

Q. Okay. So the implication -- withdrawn.

(Thereupon, the below-referred to document was premarked as Plaintiff's Exhibit Number 6 for Identification.)

BY MR. ROTHMAN:

Q. Did you review the Exhibit Number 6, the Declaration of Robert Simon and the memo that's attached to it, at any point before rendering your opinion?

A. Yes, I did.
Q. Okay. So did you ever attempt to go through the exercise that Mr. Simon goes through in the memo attached to his declaration?
A. Let me just take a look through the memo.
I mean certainly in terms of downloading all of the website resources, I think I point out in my report that the approach I used to download the minified files is just to document that these things are available, used this "Save All Resources" Chrome plug-in that he used as well.
Q. Okay, but my question was, did you go through this exercise that he sets forth in his memo; did you actually do this?
A. Well, my point is there are multiple exercises in his memo.
Q. I know.
Again, my question is, did you do what -- step by step what Mr. Simon documents in his memo?
A. I mean are you talking about every piece of this memo; is that what you're asking?
Q. So in other words, beginning on the memo, if you're looking at page 4 of the memo, it says, "Below please find step-by-step directions for how to find, review, and capture the Max Minds applications and

associated source code as being served publicly on the internet by TEG", and then there are steps under to identify source code map files and then to view source code.

Do you see that?

A. I do.

Q. Okay. Did you follow these steps in an effort to recreate what Mr. Simon lays out here?

A. I don't remember if I did this for TEG or if I did this at one point for Max Minds. I do seem to recall investigating this issue, but this was right at the outset of work on this matter. I don't recall the specifics of which set of code I did this on.

Q. So you did follow these directions?

A. I mean I seem to recall certainly reviewing this and looking into it. I just -- I don't recall the specifics as I sit here right now.

Q. If you did do it, did you keep notes or records of what you did?

A. I don't think so. I think when we were testing this out, we were sort of on a time constraint of some sort.

I don't recall saving anything from just sort of initial investigation right at the outset of the work in this.

Q. Were you at all involved in the process of recommending or advising TEG what to do about the issue that's raised in Mr. Simon's declaration?

A. That's all discussions with counsel potentially?

Q. Yeah, it would, absolutely.

MR. DELANEY: Well, if it involves discussions of counsel about advice on how to handle an action rather than opposed to an expert opinion, we may have to claim privilege on that.

So --

MR. ROTHMAN: Okay.

MR. DELANEY: -- I would instruct him not to answer, just to the extent --

MR. ROTHMAN: So --

MR. DELANEY: -- that he knows.

MR. ROTHMAN: So you're -- okay. So you're invoking work product privilege as to any advice he may have given to TEG through counsel?

MR. DELANEY: If that's what you seem to be asking about and he has identified that as an issue in which he has -- which would involve him providing advice, and sitting here right now, I don't know the parameters of that, but based upon your question and his reaction, I think we'll have to assert privilege and work product doctrine at this point for that

line of inquiry.

MR. ROTHMAN: Okay.

(Thereupon, the below-referred to document was premarked as Plaintiff's Exhibit Number 15 for Identification.)

BY MR. ROTHMAN:

Q. So with respect to the source code map issue, take a look at Exhibit 15.

I just want to ask you a few questions about Exhibit 15.

A. Okay.

Q. Have you seen in the course of your review -- I didn't see these.

These are a collection of "Azure DevOps" messages for the Azure source code management system?

I didn't see these listed in your items reviewed in Attachment 2.

A. I'm sorry. What was the question there?

Q. The question is, did you see any documents that look like what's in Exhibit 15 in the course of your review?

A. I would say I've seen them because they were, I think, attached to the most recent motions. I don't know -- I don't recall seeing them prior to that, but I'd have to check my records.

Q. Okay. Well, I don't know that they were, but anyway, looking at the first page, do you know anything about the first page where it says, "Add licensing info to codebases"; do you have any knowledge of what was being done here?

A. Not without additional context.

Q. Okay. In the course of your review, did you -- were you asked to look at anything concerning licensing issues with the software?

A. Sure.

Q. Okay, and what did you find?

A. So I think that is covered. I'll just point it to you in my report.

I think this is covered in general in paragraph 40.

There is documents in the record that I reviewed, for example, what's cited at footnote 29, regarding licensing issues that the parties were trying to address during their development, you know, and the fact that there was a license expired banner in software that was being displayed on the Haptic Federal software that was causing a problem for the government customers who were trying to use the software, and I know I've seen e-mails such as the one that's cited there from around this time period that get into that issue, and ultimately, that

was something Max removed in the source code in 2023 as pointed out at the end of paragraph 40 and cited in footnote 30.

Q. Right, but the time frame that you're talking about in paragraph 40 is different from this message, which is from 5/9/2024.

Do you know anything about licensing issues around May 9th, 2024?

A. That doesn't ring any bells as I'm sitting here. I don't know that I've included anything of that for the opinions I've offered for this report.

Q. All right. You know that there's an allegation in this case about TEG removing the licensing logic in Max's software; right?

A. I think that's consistent with what I've seen in various documents.

Q. Okay. Did you see any -- where in looking at the code, did you see any indication that TEG removed licensing logic in the software --

A. I don't think I've offered --

Q. -- and then changed it?

A. I don't think I've offered any opinions on that in the analysis, just what's in the report.

Q. Okay, but did you see it?

A. I mean as I pointed out, I think, in my report,

and I'll show you or I'll point you to the exact section --

Q. No. I -- is it the one we were just talking about?

A. No.

One moment. I'll give you the specifics.

As I pointed out, the comparison I did was between TEG's earlier software from 2017/2018 --

Q. Oh, okay.

A. -- to Max's software from -- well, and I'm sorry, I shouldn't say Max's, I should say the software that was produced by Max, on the review computers in mid 2019 and fall of 2023.

Q. Okay. Take a look at the fourth page of this exhibit, please. It's --

A. I'm sorry. Of which exhibit?

Q. The one we were talking about, 15.

A. Okay.

Q. 5/10/2024, the "Subject: User Story 233 - Strip Code on build from front-end".

A. Okay.

Q. So have you seen this before?

A. And, I'm sorry, this referring specifically to?

Q. This document.

A. I mean, again, I think I've seen it in preparing

for deposition in review of the materials provided to me by --

Q. Take a look for a second at the description at the bottom of that page.

A. Okay.

Q. Do you understand this description here on this document, what it's talking about?

MR. DELANEY: Objection.

You can answer if you can.

THE WITNESS: I mean they're talking about creating a script, but that typically refers to creating source code.

You know, I really only have what's here for context. I don't have all their information. I don't even know if this is the full work item.

There's obviously a link in this e-mail that says "View work item".

So I'm not sure if there's more information beyond what's here and on the next page, but I mean I only really can tell you what it says in this Description section.

BY MR. ROTHMAN:

Q. Right.

My question is, from reading this Description section, does it -- is it your view that what's being

described here, to remove or strip code from the source maps, to remove source from the source's content keys, from the map files, is that in your view the same as the issue that you raised with use of minified JavaScript; in other words, that minified JavaScript being shown on the front end would create the same security concerns that the source map files being on front end create?

A. I'm not entirely sure I understand the question.

I would say that at the end of the day, the functionality that's in the source map is the same as what's being included in minified JavaScript files.

Q. The functionality is the same; did I understand that correctly?

A. Correct.

Q. The functionality that's shown in the source code map is the same as the minified JavaScript; correct?

A. I'd have to look at the source map files.

Certainly the application is going to have to have -- whatever JavaScript's functionality is present in those files in some manner is going to have to be transferred to the client computer in order to run.

Q. You wouldn't need to transfer the source code map or the source code files to the client computer, would you?

A. I'd have to look at the front end of the code to

answer that.

Q. Okay. Is your opinion in your report an opinion about whether exposing source code map files creates a security issue or a confidentiality issue, is that your opinion, or is it just about the minified JavaScript?

A. Let me just refer back to my report to make sure it is accurately stated.

I would say that -- let me just take a look to be specific.

I would say my opinion is specific really to the minification --

Q. Okay.

A. -- and to its use of the -- potential uses of technique to the extent that might be claimed with respect to confidential information.

That's what's in 45 and 46, and as I point out in footnotes, for example, in footnote 34, the use of the security through obscurity type approach where it's just not clear what you're looking at is not enough and is recognized in the industry as not enough to protect confidential information. More stringent measures are typically required.

Q. Okay. It's not your opinion, I want to make sure, you're not rendering an opinion about whether exposing minified JavaScript and exposing source code map

information, that those two things both expose the same file types, the same file names or the same directory structures, is it?

A. I don't know that I've gone that far.

I think the point I've raised here is simply the functionality with that. I think that is what I have said although I'd have to check for the citation on that.

Q. Okay. Going back to you mentioned pseudo code earlier.

If you look at Exhibit 2, at 3.3228 --

A. I'm sorry. Give me that one more time, the number.

Q. 3.3228.

A. Okay.

Q. Okay. Is the definition there consistent with how you use the term pseudo code in your report or in your testimony?

A. Let me just review it to be sure.

Yeah, I think that's general enough to adequately summarize my understanding of how that term is typically used.

Q. Okay, and there's an example given after the definition that says, "IF the data arrives faster than expected, THEN reject every third input ELSE process all

data received ENDIF."

Do you see that?

A. I do, and just for clarity in the record, the words "IF", "THEN", "ELSE" and "ENDIF" are all in all caps.

Q. So when you're talking about pseudo code, you're talking about somebody at TEG giving a statement like that in the example to Max?

A. So it could be like that. That is one example.

Q. Okay.

A. This is more consistent with definitions 2 and 3 in this --

Q. Okay.

A. -- particular verbiage, but let me finish my response.

Q. Sorry.

A. In the first definition, the pseudo code can be and in many cases is more programming language specific.

It might not be totally grammatically correct in the context of the particular programming language, but it might be written in something that's much closer than, you know, "IF ELSE" with written description in English of what should be going on.

That would be sort of a -- you know, the example that's listed here is more sort of a high level

structural element of a particular algorithm that you might have, but you can have pseudo code that is more detailed even if it's not specific. It depends on the nature of pseudo code. By its very nature, it's pretty general as to how you can use that term.

Q. Okay. In any event though, it would be necessary for someone who was using the pseudo code to take the point being made in the pseudo code and turn it into source code in the correct language in the application for it to work; it couldn't just be copied and pasted into the code?

A. Not literally, but you could still use the sort of design of that particular function and that could be the thing that's in the message, and it could be that there might be specific lines that could be verbatim the same with the missing bit being whatever hasn't been developed that you're saying in pseudo code, well, this is what would have to be further fleshed out.

It varies based on the pseudo code you're using. You can do it at any level of generality.

Q. Do you know the difference between JavaScript and TypeScript?

A. I would say so.

Q. Okay. What's the difference?

A. So JavaScript is typically less structured in

terms of the variable definitions and the particular types of variable using.

TypeScript provides sort of a more stringent set of definitions than you're using when you're working with JavaScript code.

So, for example, in JavaScript, you can create a variable just saying it's a variable and the specific type could vary based on the data that's stored inside that.

TypeScript, if I recall correctly, refines that to say you have to be more specific as to what type of data is in that variable so that somebody using the program can look at it and say, okay, this is an integer or a string or some other particular type of data.

Q. Okay. Do you know what an angular template is?

A. Sure. I think so.

Q. Go ahead. Tell me what you -- what it is.

A. So angular is a JavaScript framework for creating front end applications.

A template in this context is typically a set of screen display elements that are going to provide some redefined structure.

In this context, I would say an angular template is a -- I don't -- I hate to make this sort of circular, but it's a template for a JavaScript front end that is

built using the angular frame.

Q. Okay. If we go back to the issue of the exposure of the source code maps, you said TypeScript is going to be more specific than JavaScript; right?

A. I think that's correct, yes.

Q. Okay. So if the information in TypeScript files was specific in a way that would create security concerns for the exposure of those TypeScript files, you with me so far?

A. I'm not sure I am, but why don't you finish the question and then I'll ask for clarification.

Q. Okay. Would -- in your view, would the security concerns be the same for the exposure of JavaScript files?

A. I think the answer, if I understand your question -- let me make sure I understand the question.

Is the question, when I'm providing minified JavaScript, are the security concerns the same as if I'm providing minified TypeScript?

Q. Not minified TypeScript but actually exposing the TypeScript files themselves, the TypeScript files which are used using the angular templates to create the JavaScript.

A. I think the answer is yes in that the functionality still has to be expressed one way or the

other.

You're getting functionality in both that's going to describe the operation of the software, which could potentially be investigated and attacked like from a security perspective. That's what we're talking about here.

There is functionality is what you're going to have that's ultimately going to be the primary attack factor.

You're going to say, how does this thing work so that somebody could then say, well, where do I pull it apart to make it work the way I want it to, to compromise whatever that would be.

I think the answer is yes because the functionality is the thing that's ultimately going to matter.

Q. So in both cases, you're saying cases exposing minified JavaScript versus the case of exposing the original TypeScript files, the security concerns as to functionality are identical in your view?

A. I think in that the functionality is being exposed, yeah, that's what somebody's going to have to look at. They're going to have to look at this code and say, how does it work, in order to try and determine if there is an attack factor.

Q. Okay. So a web browser, which is going to be what is used to view or run the code, can a web browser natively process original TypeScript files or angular templates?

A. I'd have to look into that. Offhand, I'm not totally sure. That gets into a TypeScript building question that I'd have to go and check.

Q. Okay. Let's assume for a second that a web browser cannot process and run TypeScript files or angular templates just for the sake of argument.

So it couldn't use the original TypeScript or angular templates to render a web page or create an application. Okay. Let's assume that for the purposes of this.

A. Okay.

Q. All right.

Would it then still be your view that exposing minified JavaScript is the same in terms of security concerns as exposing the original TypeScript or angular templates?

A. I mean if ultimately you're going to use the angular or TypeScript templates -- excuse me -- the TypeScript or the angular templates in order to generate JavaScript code, either way, what you're going to need to have in some form is JavaScript that can be run

natively on a web browser.

That's ultimately what's going to be publicly available to somebody who's going to need -- if they're going to try and attack the code, that's what they're going to have -- work -- ultimately, if you're upstream of that and then somebody can generate the code from that versus having the JavaScript code, you still have the same problem.

If functionality is being exposed, you're creating a potential attack.

Q. So I understand that statement as being indication that you could take a minified JavaScript file and reverse engineer or de-compile it to get back into the underlying logic that was in the TypeScript or in the angular templates.

Do I -- did I understand that correctly?

A. No. I don't -- the way you phrased that, I don't think that's quite correct.

Q. Okay. So the TypeScript files, they have things that are not in the minified JavaScript, right, like they have metadata, annotations, comments and other logic that a developer could read that doesn't exist in minified JavaScript; right?

A. I think as you phrase that, the answer is still I don't think that's right.

Q. No?

You think that the TypeScript file wouldn't contain things that would also not be contained in JavaScript or vice versa?

A. No. I mean I -- that's not what I said.

I think the way you phrased the previous question, I think there was a problem with how you phrased it that made it incorrect.

Q. Okay. Well, but my point is, the TypeScript files, they're going to have information in it that wouldn't end up in the minified JavaScript files; correct?

A. That is possible, but it's not a -- you said "going to". I don't think that's strictly speaking right.

Q. Assuming there was information in the TypeScript files in the nature of metadata, annotations, comments, things like that, assuming there was that stuff in there, right, that would not necessarily end up in the minified JavaScript; right?

A. That I believe I agree with --

Q. Okay.

A. -- to an extent.

I mean I will clarify at least to say that I would have to check and make sure there are no elements of

what you just said that would be structurally required elements to the JavaScript program that would need to be present as part of the translated minified code.

Q. Okay, but if my statement is correct then and if those additional things, the metadata, the annotations, the comments, if those things were of a confidential nature, then it would be different to expose the TypeScript files than it would be to just expose minified JavaScript?

A. I -- confidential, I mean I guess I'm lacking some context in terms of how you sort of set up the hypothetical here.

Q. Understood.

The context would have been, I think, in the files that were exposed that are -- that was discussed in Mr. Simon's declaration and the attachment, but I can't ask you about those 'cause counsel has raised a privilege objection.

MR. ROTHMAN: So I have no further questions.

MR. DELANEY: All right. I just want to clarify the record on one thing.

CROSS-EXAMINATION

BY MR. DELANEY:

Q. Thank you, Mr. Ferrara, for your testimony.

You had discussed at several points that there

were constraints on your review of the source code and I don't know if you and Mr. Rothman ever stated what those were.

So my question to you would be, what were the constraints imposed upon your review of the Haptic Federal source code as we're calling it?

A. So I would say there are two primary constraints.

First, not all of the source code that I -- based on documents provided by Mr. Simon necessarily may compose the Haptic Federal source code have been produced.

There are a number of repositories that were identified in one of his exhibits, one of his declarations, that list something like, I think it's 91 source code repositories.

There is -- there are a number of repositories on that list that reference haptic in some form or another.

Of that list, only four repositories have been produced.

Again, these are the ones listed in Attachment 2 to my report.

I obviously don't know what I don't know about those particular repositories, which, you know, I know we have requested information about even just basic metadata such as get logs that would provide some

clarity into what is in those repositories, and that is one of the two constraints.

The other constraint is that the code is produced in a review computer in the first place that's isolated from any other code produced and is effectively air gapped, for lack of a better term, meaning you can't connect it to any other systems, you can't put anything else on there.

Now, obviously we've prearranged for necessary tools to be put on there, but, you know, when you're working on a case where you need to compare source code in particular ways, the typical approach would be to have both sets of source code on a computer that could be then reviewed so that you can do side by side comparisons so that you can search for line by line similarities.

That's not possible because this thing is on an air gap computer system; so those both constraints on my analysis in terms of what I could do.

I think also one other thing, thinking about it, that I pointed out in one of my declarations, if I had running -- I'm sorry -- if I had the repositories in the system that I could potentially control that was not air gapped, I could have stood up the software.

We could have actually done things like functional

testing to show specific elements of how the code are used, what conditions they're used in, things like that.

That's not really possible in an air gap system. It's not practical to be able to stand up a development environment that typically would be connected to the internet to be able to then build source code that's being produced in the federal repositories.

It's just I've done that on other cases, it doesn't work well, and those are all things that provided bounds on what I could fully explore in this particular matter for purposes of this report.

Q. These constraints that you mentioned, they weren't imposed actually by my client, TEG, were they?

A. No, definitely not.

MR. DELANEY: All right. I have no further questions.

MR. ROTHMAN: Thank you for your time, Mr. Ferrara.

THE WITNESS: Thank you.

MR. DELANEY: All right. Have a good day, Joel.

MR. ROTHMAN: Yes.

I assume he's going to read.

MR. DELANEY: Yeah, we'll read.

MR. ROTHMAN: And could I get also a phone

number for you, Ms. Goldman?

THE COURT REPORER: It's (305) --

MR. ROTHMAN: Uh-huh.

THE COURT REPORTER: -- 439-1509.

MR. ROTHMAN: 1509.

Okay. We're going to let you know about the transcript and how quickly we need it, but I don't have an answer for you right now.

THE COURT REPORTER: Okay, and do you want a copy, Mr. Delaney?

MR. DELANEY: Yes.

THE COURT REPORTER: Okay. So it's ordered, but you're --

MR. ROTHMAN: Right now, for right now, it's a regular order, but -- you know, regular delivery, but I need a few minutes to think about how quickly I need it and get back to you.

THE COURT REPORTER: Okay. No problem.

MR. ROTHMAN: Okay?

THE COURT REPORTER: Yes.

MR. ROTHMAN: Thanks very much.

THE COURT REPORTER: Thank you.

MR. DELANEY: All right. Thank you, everybody.

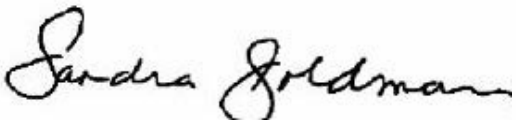
(Thereupon, the video conference deposition was concluded at 12:29 p.m.)

CERTIFICATE OF OATH OF WITNESS

STATE OF FLORIDA)
) SS:
COUNTY OF BROWARD)

I, SANDRA GOLDMAN FREDERICKS, Court Reporter and Notary Public in and for the State of Florida at Large, certify that the witness, NICK FERRARA, remotely appeared before me on February 19, 2025, and was duly sworn by me.

WITNESS my hand and official seal this 20th day of February, 2025.



SANDRA GOLDMAN FREDERICKS, FPR,
Court Reporter and Notary Public,
State of Florida at Large.

Notary #HH076143

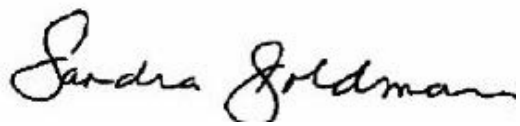
My commission expires: 4/9/25

REPORTER'S VIDEO CONFERENCE DEPOSITION CERTIFICATE

I, SANDRA GOLDMAN FREDERICKS, Florida Professional Reporter, certify that I was authorized to and did stenographically report the video conference deposition of NICK FERRARA, the witness herein; that a review of the transcript was requested; that the foregoing pages numbered from 4 to 95 inclusive is a true and complete record of my stenographic notes of the video conference deposition by said witness; and that this computer-assisted transcript was prepared under my supervision.

I further certify that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action.

DATED this 20th day of February, 2025.



SANDRA GOLDMAN FREDERICKS,
Florida Professional Reporter

Raighne C. Delaney, Esquire
rdelaney@beankinney.com

February 20, 2025

RE: Max Minds vs. Triangle Enterprise Group, et al.
February 19, 2025 - Nick Ferrara - 7182553

The above-referenced transcript is available for review.

The witness should read the testimony to verify its accuracy. If there are any changes, the witness should note those with the reason on the attached Errata Sheet.

The witness should, please, date and sign the Errata Sheet and email to the deposing attorney as well as to Veritext at Transcripts-fl@veritext.com and copies will be emailed to all ordering parties.

It is suggested that the completed errata be returned 30 days from receipt of testimony, as considered reasonable under Federal rules*, however, there is no Florida statute to this regard.

If the witness fails to do so, the transcript may be used as if signed.

Yours,
Veritext Legal Solutions

*Federal Civil Procedure Rule 30(e)/Florida Civil Procedure Rule 1.310(e)

Max Minds vs. Triangle Enterprise Group, et al.
February 19, 2025 - Nick Ferrara - 7182553

E R R A T A S H E E T

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Under penalties of perjury, I declare that I have read the foregoing document and that the facts stated in it are true.

_____ _____
NICK FERRARA DATE

Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

Veritext Legal Solutions is committed to maintaining the confidentiality of client and witness information, in accordance with the regulations promulgated under the Health Insurance Portability and Accountability Act (HIPAA), as amended with respect to protected health information and the Gramm-Leach-Bliley Act, as amended, with respect to Personally Identifiable Information (PII). Physical transcripts and exhibits are managed under strict facility and personnel access controls. Electronic files of documents are stored in encrypted form and are transmitted in an encrypted

fashion to authenticated parties who are permitted to access the material. Our data is hosted in a Tier 4 SSAE 16 certified facility.

Veritext Legal Solutions complies with all federal and State regulations with respect to the provision of court reporting services, and maintains its neutrality and independence regardless of relationship or the financial outcome of any litigation. Veritext requires adherence to the foregoing professional and ethical standards from all of its subcontractors in their independent contractor agreements.

Inquiries about Veritext Legal Solutions' confidentiality and security policies and practices should be directed to Veritext's Client Services Associates indicated on the cover of this document or at www.veritext.com.